

IN THE CLAIMS

Claim 1 (Previously Presented): An image processing apparatus comprising:

an image storage unit configured to store a plurality of types of image data, one of said plurality of types of image data is binary image data, in a first data format that is compressed;

a data format converter configured to convert the first data format of the image data to a second data format being a general data format which can be read by a general data format converter including general image processing functions, the data format converter including

at least one multinary data resolution converter configured to convert multinary data including more than two bits and to determine a desired resolution range and to perform resolution conversion on the image data stored in the image storage unit, which is multinary image data, at a conversion rate such that resolution of the image data as a base of conversion and a resolution after the conversion fall into said desired resolution range, and

a binary resolution converter configured to perform resolution conversion on the binary image data; and

a communicator including

a communication interface configured to transmit the image data of the first data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device including the general data format converter.

Claim 2 (Previously Presented): The image processing apparatus according to claim 1, wherein the data format converter comprises:

an expander configured to expand the image data stored in the image storage unit;
a multinary unit configured to convert image data expanded of low bits to multinary image data; and
a data compressor configured to compress the multinary image data into a multinary general compression format.

Claim 3 (Previously Presented): The image processing apparatus according to claim 1, wherein the data format converter comprises:

an expander configured to expand the image data stored in the image storage unit;
a binary unit configured to convert the image data expanded, which is monochrome multinary image data, to binary image data; and
a data compressor configured to compress the binary image data in a binary general compression format.

Claim 4 (Previously Presented): The image processing apparatus according to claim 1, wherein the data format converter comprises:

a color space converter configured to convert a color space of the image data stored in the image storage unit, which is color multinary image data, to a general color space.

Claims 5 and 6 (Cancelled).

Claim 7 (Previously Presented): The image processing apparatus according to claim 1, further comprising:

an imaging unit configured to form an image on a recording medium based on the image data stored in the image storage unit, wherein a printing function is combined with the imaging unit to adapt the first data format of the image data stored in the image storage unit to a data format used in the imaging unit.

Claim 8 (New): The image processing apparatus according to claim 1, wherein the multinary data resolution converter converts the resolution of a final image to a constant value irrespective of the resolution of the original data.

Claim 9 (New): The image processing apparatus according to claim 1, wherein a color image is converted into the multinary image data and a monochrome image is converted into the binary image data irrespective of multinary data or binary data.

Claim 10 (New): The image processing apparatus according to claim 1, wherein conversion rate is set to one-eighth of the images original resolution.